

This Class 585 is considered to be an integral part of Class 260 (see the Class 260 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 260.		242	.From wood
		250	<b>ADDING HYDROGEN TO UNSATURATED BOND OF HYDROCARBON, I.E., HYDROGENATION</b>
		251	.With subsequent diverse conversion
		252	..Dehydrogenation
		253	..Isomerization
		254	.With preliminary diverse conversion
1 <b>PRODUCT BLEND, E.G., COMPOSITION, ETC., OR BLENDING PROCESS PER SE</b>		255	..Polymerization of olefins only
2 .With nonhydrocarbon additive		256	..Molecular weight reduction
3 ..O containing		257	.By hydrogen transfer from other hydrocarbon
4 ...And N containing		258	.Hydrocarbon is contaminant in desired hydrocarbon
5 ....Additive(s) aromatic		259	..Hydrogenation of diolefin or triple bond
6 .Gaseous blend		260	...Using catalyst or support of defined structure, surface area, or pore size
6.3 .Fluent dielectric		261	...Using catalyst and additional nonmetal material
6.6 .Mineral oil-containing		262	...Using S or Group I or II transition metal-containing catalyst
7 .Component of indefinite molecular weight greater than 150		263	.With temperature or concentration gradient in reactor or specified provision for heating, cooling, or reactor control
8 ..Reaction product of halogenated hydrocarbon		264	.With preliminary treatment of feed or plural separation procedures
9 ..Wax		265	.Plural hydrogenation stages
10 ..Polymer		266	.Hydrocarbon is aromatic
11 ...Containing aromatic ring		267	..Using alkaline metal material
12 ...Plural polymers or copolymer of specified olefins		268	..To produce polycyclic
13 ..Mineral oil (petroleum) fraction		269	..Using Group VIII metal-containing catalyst with additional nonhydrocarbon agent
14 .For fuel use only		270	...Co, Fe, or Ni
15 <b>HYDRATE OR PRODUCTION THEREOF</b>		271	.Partial
16 <b>COMPOUND OR REACTION PRODUCT MIXTURE</b>		272	..Hydrogen supplied by water or alcohol
17 .Polymer of indefinite molecular weight		273	..Using Group VIII metal-containing catalyst
18 ..Acyclic		274	...Co, Fe, or Ni
19 ..Containing aromatic ring		275	.Using transition metal-containing catalyst
20 .Alicyclic		276	..Elemental Co, Fe, or Ni
21 ..Polycyclo, i.e., fused			
22 ...Of differing carbon content, more than three or with bridge			
23 ..Unsaturated ring			
24 .Aromatic			
25 ..Plural rings			
26 ...Polycyclo, i.e., fused			
27 ....Of differing carbon content or with bridge			
240 <b>PRODUCTION OF HYDROCARBON MIXTURE FROM REFUSE OR VEGETATION</b>			
241 .From synthetic resin or rubber			

277	..Group VIII metal with additional nonhydrocarbon agent or complexed with hydrocarbon	352	.Adamantane or derivative
300	<b>PLURAL PARALLEL SYNTHESSES</b>	353	.By shift, opening, or removal of shared-carbon ring
301	.Using same catalyst, solvent, inert heat carrier, or component thereof	354	..Cyclopentadiene from its polymer
302	.With blending of products from two parallel reactions	355	..Camphene or ten-C monocyclic from polycyclic, e.g., terpene isomerization, etc.
303	..And passage to further reaction	356	...Camphene from pinene or derivative
304	Diverse parallel syntheses	357	.From nonhydrocarbon
310	<b>PLURAL SERIAL DIVERSE SYNTHESSES</b>	358	..Nonring moiety becomes ring
311	.One synthesis rehabilitates catalyst for other, e.g., by alkylation with ester, etc.	359	..Halogen containing
312	.Same catalyst, solvent, or component thereof used in both syntheses	360	.Polycyclic product
313	..Entire catalyst composition	361	..By condensation, e.g., Diels-Alder reaction, etc.
314	.With hydrocarbon effluent stream splitting for recycle to different syntheses	362	...Dimerizing a cycloolefin
315	.With hydrocarbon recycle from later to earlier synthesis	363	..By double-bond shift in side-chain
316	..Earlier synthesis is condensation or alkyl transfer	364	.By condensive ring expansion, e.g., "olefin dismutation", etc.
317	.To produce alicyclic	365	.From nonring hydrocarbon
318	..Having unsaturated ring	366	..Alkadiene
319	.To produce aromatic	367	...Using refractory-group metal-containing catalyst
320	..Polycyclic	368	....With nonmetal element or compound
321	..Having plural side-chains	369	...Using Co-, Fe-, or Ni-containing catalyst
322	..Including an aromatization step	370	....With nonmetal organic compound
323	..Including an alkylation step	371	.By ring expansion or contraction
324	.To produce unsaturate	372	..Using Al group metal halide catalyst
325	..Having triple bond	373	...With added hydrocarbon complex or nonhydrocarbon organic agent
326	..Polyolefin	374	..Using metal-containing catalyst
327	...From O compound feed or intermediate	375	.By alkylation or alkyl transfer
328	..Including displacement from nonhydrocarbon by entire hydrocarbon molecule, e.g., growth reaction, etc.	376	..Feed has side-chain
329	..Including polymerization of olefin	377	.By double-bond shift
330	...And a preliminary unsaturation step, e.g., cracking, dehydrogenation, etc.	378	..Using organometallic compound, P- or S-containing catalyst
331	.Including alkylation to produce branched-chain paraffin	379	.By dehydrogenation
332	..And preliminary isomerization or polymerization	380	..Using H acceptor
350	<b>ALICYCLIC COMPOUND SYNTHESIS</b>	400	<b>AROMATIC COMPOUND SYNTHESIS</b>
351	.Carotene or derivative	401	.With measuring, sensing, testing, or synthesis operation control responsive to diverse condition
		402	.Exploiting or conserving heat of quenching, reaction, or regeneration

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|-----|--|-----|---|
| 403 | .Using apparatus of recited composition  | 429 | ...Through residue of nonring molecule, e.g., butadiene, etc.                                       |
| 404 | .By ring expansion or contraction  | 430 | .From alicyclic   |
| 405 | ..Using transition metal-containing catalyst   | 431 | ..Polycyclic product or with olefinic unsaturation in feed  |
| 406 | .By dimerization of vinyl aromatic   | 432 | ...Cymene product   |
| 407 | .By ring formation from nonring moiety, e.g., aromatization, etc.  | 433 | ..Using H acceptor or Cr-, Mo-, or W-containing catalyst  |
| 408 | ..Nonhydrocarbon feed  | 434 | ..Using noble metal catalyst  |
| 409 | ...Aromatic or carbonyl-containing reactant  | 435 | .Having alkenyl moiety, e.g., styrene, etc.   |
| 410 | ..Aromatic feed  | 436 | ..Polycyclic product or from nonhydrocarbon feed  |
| 411 | ...Using metal-containing catalyst   | 437 | ...O-containing feed  |
| 412 | ..Plural stage, with moving catalyst or with specified flow rate or procedure                                  | 438 | ..By condensation using metal-containing catalyst   |
| 413 | ..With preliminary treatment of feed or plural separation procedures   | 439 | ..By C removal, e.g., cracking, etc.  |
| 414 | ..Using metal-free H acceptor  | 440 | ..By dehydrogenation  |
| 415 | ..Product compound has more C atoms than feed compound, e.g., cyclic polymerization, etc.                      | 441 | ...Plural stage or with plural separation procedures  |
| 416 | ...Triple bond-containing feed   | 442 | ...Using halogen or S   |
| 417 | ...Using transition metal-containing catalyst  | 443 | ...Using elemental O  |
| 418 | ..Using transition metal-containing catalyst   | 444 | ...Using metal oxide, sulfide, or salt  |
| 419 | ...Group VIII noble metal  | 445 | ....Cr-, Mo-, or W-containing   |
| 420 | ...Group VI metal  | 446 | .By condensation of entire molecules or entire hydrocarbyl moieties thereof, e.g., alkylation, etc. |
| 421 | ...With alkaline metal compound  | 447 | ..With specified flow rate through reactor or flow procedure within or at entrance to reactor       |
| 422 | .By condensation of entire cyclic molecules or entire hydrocarbyl moieties thereof, e.g., polymerization, etc. | 448 | ..With preliminary treatment of feed  |
| 423 | ..With plural separation procedures  | 449 | ..Plural alkylation stages  |
| 424 | ..Plural stage or with preliminary treatment of feed   | 450 | ..With plural separation procedures   |
| 425 | ..Ring carbon of one molecule joined to ring carbon of other   | 451 | ...Including dissolving or solids formation or separation   |
| 426 | ...Through residue of nonring molecule, e.g., acetylene, etc.  | 452 | ..Attachment to side-chain, e.g., telomerization, etc.  |
| 427 | ...Arylene bond formed using metal-containing agent  | 453 | ...Resulting side-chain has less than four C atoms  |
| 428 | ..Nonring moiety of one molecule bonded to nonring moiety of other, e.g., polystyrene, etc.                    | 454 | ..Feed other than hydrocarbon, hydroxy, monohalide, or ether  |
|     |  | 455 | ..Resulting side-chain restricted to more than five C atoms, e.g., "detergent alkylate", etc.       |
|     |  | 456 | ...Using halogen-containing catalyst  |

457	..Using organometallic compound catalyst	488	...And H
458	..Using S-containing catalyst	489	....Transition metal-containing catalyst
459	..Using Al halide catalyst	500	<b>UNSATURATED COMPOUND SYNTHESIS</b>
460	...And additional metal-containing or nonhalide inorganic agent	501	.With measuring, sensing, testing, or synthesis operation control responsive to diverse condition
461	...Complexed, e.g., sludge, etc., or with additional extraneous organic agent	502	.By addition of entire unsaturated molecules, e.g., polymerization, etc.
462	..Using halogen-containing catalyst	503	..With heat conservation or using apparatus of recited composition
463	..Alumina containing	504	..With specified procedure for recycle of nonhydrocarbon
464	...HF	505	..Triple-bond product
465	...B trifluoride in a complex or with additional nonhydrocarbon agent	506	..Poly-double-bond product
466	..Using P-containing catalyst	507	...More than two double bonds, e.g., diene polymerization, etc.
467	..Using metal, metal oxide, or hydroxide catalyst	508	....Of definite molecular weight, e.g., dimer, etc.
468	...Noncrystalline, and containing Al and Si	509	...Using P-containing catalyst
469	.From nonhydrocarbon feed	510	..Definite molecular weight product, e.g., dimer, etc.
470	.By alkyl or aryl transfer between molecules, e.g., disproportionation, etc.	511	...Using catalyst containing metal bonded to or complexed with C, C-containing compound, or H
471	..Product is polycyclic, of increased side-chain length, or a specific position polyalkyl benzene isomer	512	....Al-and transition metal-containing
472	...Using Al or B halide catalyst	513	.....And N-, P-, or S-containing
473	....Meta- or 1,3,5-alkyl benzene	514	...Using P-containing catalyst
474	..Plural compounds of different weight become midweight compound, i.e., averaging	515	...Using S-containing catalyst
475	..Using crystalline aluminosilicate catalyst	516	...Using alkali metal-containing catalyst
476	.By ring opening, removal, degradation, or shift on chain or other ring	517	..Plural serial polymerization stages
477	.By isomerization	518	..With preliminary treatment of feed
478	..With plural separation steps	519	...Removal of hydrocarbon fraction
479	...Including a crystallization step	520	..Using extraneous nonhydrocarbon agent, e.g., catalyst, etc.
480	..Using metal oxide- or sulfide-containing catalyst	521	...Hydride or organic compound or complex containing alkaline-, B-, or Zn group material
481	...Crystalline aluminosilicate	522	....Al trialkyl
482	...Pt-group metal containing	523	....Transition metal-containing
483	.By dealkylation	524	.....Ti
484	..Polycyclic	525	...B-containing catalyst
485	...Using catalyst and H	526	...S-containing catalyst
486	..Using extraneous agent in reaction zone, e.g., catalyst, etc.	527	...N- or P-containing catalyst
487	...And steam	528	....Metal phosphate

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| 529 | ....P compound on solid carrier,<br>e.g., "solid phosphoric acid",<br>etc.                            | 619 | .....Halogen is I only   |
| 530 | ...Catalyst containing inorganic<br>metal   | 620 | .....Halogen is Cl only  |
| 531 | ....Group VIII metal  | 621 | ....Elemental O acceptor   |
| 532 | ....Al  | 622 | .....With P containing extraneous<br>agent   |
| 533 | .....Al oxide, e.g.,<br>aluminosilicate, etc.   | 623 | .....Sn-containing   |
| 534 | .Triple-bond product  | 624 | .....With metal oxide or<br>hydroxide extraneous agent   |
| 535 | ..With heat conservation or using<br>solid inert heat carrier,<br>e.g., regenerative furnace,<br>etc. | 625 | .....Ferrite   |
| 536 | ...With carrier movement through<br>reaction zone   | 626 | .....Oxide of As, Bi, or Sb  |
| 537 | ..Using apparatus of recited<br>composition   | 627 | ...Using extraneous<br>nonhydrocarbon agent, e.g.,<br>catalyst, etc.   |
| 538 | ..From organic nontriple-bond<br>feed   | 628 | ....Moving catalyst or plural<br>stage   |
| 539 | ...By thermal conversion of<br>hydrocarbon, i.e., thermolysis   | 629 | ....Transition metal oxide or<br>sulfide agent   |
| 540 | ...By partial combustion of<br>hydrocarbon  | 630 | .....Cr, Mo, or W  |
| 541 | ....Using extraneous nonreactant,<br>e.g., diluent, catalyst, etc.                                    | 631 | .....With other transition metal   |
| 600 | .Product having more than two<br>double bonds   | 632 | ....Metal salt agent   |
| 601 | .Diolefin product   | 633 | ...Plural stage or with specified<br>quench or separation procedure  |
| 602 | ..With heat conservation or using<br>solid inert heat carrier,<br>e.g., regenerative furnace,<br>etc. | 634 | .With heat conservation or using<br>solid or molten inert heat<br>carrier, e.g., regenerative<br>furnace, etc. |
| 603 | ..From nonhydrocarbon feed  | 635 | ..With carrier movement through<br>reaction zone or use in<br>quenching  |
| 604 | ...Heterocyclic   | 636 | .Using apparatus of recited<br>composition   |
| 605 | ....Using P-containing catalyst   | 637 | .By displacement of hydrocarbon<br>radical by hydrocarbon<br>molecule  |
| 606 | ...O-containing   | 638 | .From nonhydrocarbon feed  |
| 607 | ....Plural O-containing organic<br>compounds  | 639 | ..Alcohol, ester, or ether   |
| 608 | ....With unsaturated hydrocarbon<br>in feed   | 640 | ...Using metal oxide catalyst  |
| 609 | ....Alcohol   | 641 | ..Halogen-containing   |
| 610 | .....Diol   | 642 | ...Using acid, metal oxide, or<br>salt catalyst  |
| 611 | .....Using P-containing catalyst  | 643 | .By alkyl transfer, e.g.,<br>disproportionation, etc.  |
| 612 | ..Halogen-containing feed using<br>extraneous nonhydrocarbon<br>agent                                 | 644 | ..Plural stage or averaging  |
| 613 | ..By C content reduction, e.g.,<br>cracking, etc.   | 645 | ..Using organic extraneous agent   |
| 614 | ...Isoprene product per se  | 646 | ..Using catalyst containing Mo,<br>Re, or W and another<br>transition metal                                    |
| 615 | ...Butadiene product per se   | 647 | ..Using Re-containing catalyst   |
| 616 | ..By dehydrogenation  | 648 | .By C content reduction, e.g.,<br>cracking, etc.   |
| 617 | ...Using nonhydrocarbon acceptor  | 649 | ..Isobutylene product per se   |
| 618 | ....Halogen-containing acceptor<br>with elemental O   | 650 | ..Ethylene product per se  |
|     |   | 651 | ...Using catalyst  |
|     |   | 652 | ...Using O (partial combustion)<br>or steam  |

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| 653 | ..Using catalyst   | 707 | .With specified procedure for adding fresh makeup catalyst component to complex (sludge), support, or inert contact material |
| 654 | .By dehydrogenation  |     |  |
| 655 | ..With plural separation procedures applied to effluent or effluent component                              | 708 | .By alkyl transfer, e.g., disproportionation, etc.   |
| 656 | ..Using acceptor, e.g., hydrogen-exchange disproportionation, etc.   | 709 | .By condensation of a paraffin molecule with an olefin-acting molecule, e.g., alkylation, etc.                               |
| 657 | ...Halogen-containing acceptor   |     |  |
| 658 | ...Elemental O or S acceptor with extraneous nonhydrocarbon agent, e.g., catalyst, etc.                    | 710 | ..With catalyst rehabilitation by reversion from different compound or HF complex  |
| 659 | ..Plural stages or with catalyst movement  | 711 | ..Including nonhydrocarbon reactant  |
| 660 | ..Using extraneous agent containing Pt-group metal and non-Pt-group metal                                  | 712 | ..With removal of organic halogen contaminant  |
| 661 | ..Using transition metal oxide, sulfide, or salt   | 713 | ...Using solid catalyst or sorbent   |
| 662 | ...Cr, Mo, or W  | 714 | ..With introduction of same material at more than two serially spaced points of reaction zone system                         |
| 663 | ....With other transition metal  | 715 | ..With autorefrigeration   |
| 664 | .By double-bond-shift isomerization  | 716 | ..Plural alkylation stages   |
| 665 | ..Using organometallic catalyst  | 717 | ..With preliminary treatment of feed   |
| 666 | ..Using aluminosilicate catalyst   | 718 | ..With coalescing or sorption of, or addition of specific agent to, effluent or effluent component                           |
| 667 | ..Using P-containing catalyst  | 719 | ..With plural separation procedures applied to effluent or effluent component  |
| 668 | ..Using S-containing catalyst  | 720 | ..With specified flow procedure within or at entrance to reactor, e.g., by use of named mixing device, etc.                  |
| 669 | ..Using halogen-containing catalyst  | 721 | ..Using extraneous nonhydrocarbon agent  |
| 670 | ..Using transition metal-containing catalyst   | 722 | ...Aluminosilicate or organometallic   |
| 671 | .By skeletal isomerization   | 723 | ...HF  |
| 700 | <b>SATURATED COMPOUND SYNTHESIS</b>  | 724 | ....With additional nonhydrocarbon agent   |
| 701 | .With measuring, sensing, testing, or synthesis operation control responsive to diverse condition          | 725 | .....B-, N-, or P-containing   |
| 702 | .Synthesis catalyst, solvent, or component thereof used as agent in hydrocarbon purification or separation | 726 | ...B-containing  |
| 703 | ..By interaction with nonhydrocarbon   | 727 | ...Al halide   |
| 704 | .With control of water content of recycled catalyst  | 728 | ....With additional nonhydrocarbon agent   |
| 705 | .With removal of catalyst component from metal-hydrocarbon complex   | 729 | .....H halide  |
| 706 | .With addition of reactor effluent component to catalyst as agent for rehabilitation or recycle            | 730 | ...S-containing  |
|     |  | 731 | ....Sulfuric acid with additional nonhydrocarbon agent   |

732	...O-containing	808	....Agent contains N, carbonyl, or dihydroxy moiety
733	.From nonhydrocarbon feed	809	..To recover unsaturate
734	.By isomerization	810	...Diolefin
735	..Using temperature gradient or material concentration gradient or introduction of same material at more than two serially spaced points of reaction zone system	811	...Including treatment with S-containing agent
736	..Plural isomerization stages	812	.By cooling of liquid to obtain solid, e.g., crystallization, etc.
737	..With preliminary treatment of paraffin feed	813	..Using specified holding time or specified cooling rate
738	..With specified isomerizate purification or separation procedure	814	..With treatment of mother liquor after crystal separation
739	..Using aluminosilicate catalyst	815	..With dissolving or plural serial crystallizations
740	..Using B- or P-containing catalyst	816	..With addition of extraneous material
741	..Using Al halide catalyst	817	...Before crystal formation
742	...With additional metal halide	818	.By membrane, selective septum, or coalescer
743	...With S-containing or free or organic halogen agent	819	..Aromatic permeate
744	...With metal oxide or elemental carbon, e.g., supported, etc.	820	.By contact with solid sorbent
745	...With added organic agent or in complex with organic material	821	..With measuring, sensing, testing, or recycle of sorbate to same sorption zone
746	...With inorganic material other than halogen-containing	822	..Plural serial sorptions
747	..Using halogen-containing catalyst	823	..Sorbate is nonhydrocarbon or chemically undetermined component, e.g., "color-former", etc.
748	...With alumina	824	...O-containing sorbate
749	....F	825	..With fractional or linear desorption, e.g., chromatography, etc.
750	..Using metal oxide or hydroxide catalyst	826	..With specified sorbent rehabilitation procedure or agent, e.g., desorbent, etc.
751	...Including free metal	827	...Cyclic sorbate
752	.By C content reduction, e.g., hydrocracking, etc.	828	....Aromatic separated from other aromatic
800	<b>PURIFICATION, SEPARATION, OR RECOVERY</b>	829	...Unsaturated sorbate
801	.By conversion of solid to gas, e.g., sublimation, etc., or by melting or squeezing out liquid from solid natural source	830	..Sorbent is or contains organic
802	.By plural serial diverse separations	831	..Cyclic sorbate
803	..To recover alicyclic	832	.Polymerization and depolymerization
804	..To recover aromatic	833	.By addition of extraneous agent, e.g., solvent, etc.
805	...Xylene or ethylbenzene	834	..With contact procedure involving particular apparatus or more than two moving streams
806	...Having unsaturated or one-C side-chain	835	..With fractional disengagement from agent by use of other agent
807	...Including steps of distillation and agent addition		

- 836 ..Different, sequentially used agents
- 837 ...One agent is a diluent, i.e., nonselective solvent or heat exchange material
- 838 ...Resolution of feed into more than two different components
- 839 ...Later agent disengages earlier, e.g., decomplexing agent, etc.
- 840 ....Later agent is hydrocarbon
- 841 ..H
- 842 ..HF and another fluoride
- 843 ..Ag
- 844 ...By interaction with monoolefin
- 845 ..Cu
- 846 ...Ammoniacal, e.g., Cu ammonium acetate (CAA), etc.
- 847 ....Triple-bond compound separated
- 848 ...Plural metal or nonhalide Cu compound-containing
- 849 ...Cu halide with added material other than water
- 850 ..Group VII or VIII transition metal-containing, e.g., Werner complex formation, etc.
- 851 ..Group III nontransition element-containing
- 852 ...Al
- 853 ..Alkaline metal-containing
- 854 ...Elemental metal, oxide, or hydroxide
- 855 ..Metal-containing
- 856 ..S containing
- 857 ...S dioxide, sulfolane, or sulfolene
- 858 ...Sulfuric acid
- 859 ....Interaction with tertiary olefin
- 860 ..N-containing
- 861 ...Ammonia
- 862 ...Carbonyl moiety-containing
- 863 ...Interaction with aromatic
- 864 ..Organic agent
- 865 ...Heterocyclic or polymeric
- 866 ...Acid, anhydride, ester or ether
- 867 ...Hydrocarbon
- 868 ..Inorganic O-containing agent
- 899 **MISCELLANEOUS PROCESS, E.G.,  
INDETERMINATE MODIFICATION OF  
A PROPERTY, STORAGE,  
TRANSPORTATION, ETC.**

**CROSS-REFERENCE ART COLLECTIONS****CATALYST AND RECYCLE  
CONSIDERATIONS**

- 900 ..Rehabilitation of H acceptor
- 901 ..With recycle, rehabilitation, or preservation of solvent, diluent, or mass action agent
- 902 ..Recycle of solvent and catalyst
- 903 ..With hydrocarbon recycle to control synthesis reaction, e.g., by cooling, quenching, etc.
- 904 ..Catalyst rehabilitation by reversion from different compound
- 905 ..By-product conversion to feed
- 906 ..Catalyst preservation or manufacture (e.g., activation, etc.) before use

**HEAT CONSIDERATIONS**

- 910 ..Exploiting or conserving heat of quenching, reaction, or regeneration
- 911 ..Introducing, maintaining, or removing heat by atypical procedure
- 912 ..Molten material
- 913 ..Electric
- 914 ..Phase change, e.g., evaporation, etc.

**APPARATUS CONSIDERATIONS**

- 920 ..Using apparatus of recited composition
- 921 ..Using recited apparatus structure
- 922 ..Reactor fluid manipulating device
- 923 ...At reactor inlet
- 924 ..Reactor shape or disposition
- 925 ...Dimension or proportion
- 926 ...Plurality or verticality

**SPECIAL CHEMICAL CONSIDERATIONS**

- 930 ..Process including synthesis of nonhydrocarbon intermediate
- 931 ..Metal-, Si-, B-, or P-containing, e.g., Grignard, etc.
- 932 ..Carboxyl-containing, e.g., acid, etc.
- 933 ..N-containing
- 934 ..Chalcogen-containing



- 935     ..Halogen-containing
- 940     .Opening of hydrocarbon ring
- 941     .Isotope exchange process
- 942     .Production of carbonium ion or  
          hydrocarbon free-radical
- 943     .Synthesis from methane or  
          inorganic carbon source, e.g.,  
          coal, etc.
- 944     .Radiation-resistant composition
- 945     .Product is drying oil
- 946     .Product is waxy polymer
- 947     .Terpene manufacture or recovery
- MISCELLANEOUS CONSIDERATIONS**
- 950     .Prevention or removal of  
          corrosion or solid deposits
- 951     .Reaction start-up procedure
- 952     .Reaction stopping or retarding
- 953     .Pulsed, sonic, or plasma process
- 954     .Exploiting mass-action  
          phenomenon
- 955     .Specified mixing procedure
- 956     .Condition-responsive control and  
          related procedures in  
          alicyclic synthesis and  
          purification

**FOREIGN ART COLLECTIONS**

FOR       **CLASS-RELATED FOREIGN DOCUMENTS**

